



LUTHER'S
:: TOOL ::
GRINDERS

Repairs

Changes are constantly being made to improve our machines. It is our endeavor to give our customers the very best machines and best service possible. On account of these constant changes, it is necessary that we have their assistance as far as possible in taking care of orders for repairs.

In ordering repairs, please **GIVE THE NUMBER OF PART DESIRED**, or send the old one to us. If it is impossible to do this, send a picture of the grinder, marking the part desired. If the picture does not show your machine exactly as it is, be sure to give the size of the grinding wheel.

In ordering wheels, it is necessary to state the **DIAMETER, THICKNESS, SIZE OF ARBOR HOLE, GRIT DESIRED** and **HOW THE WHEEL IS FASTENED TO THE MACHINE**.

In ordering pinions or shafts, send the old ones to us, or give the name of the grinder, the size of the grinding wheel, and the approximate date, if possible, when the grinder was purchased.

These points are of the utmost importance, and will greatly facilitate our giving you the best service in furnishing repairs and extras.

LUTHER

DIMO-GRIT THE WHEEL FOR STEEL

GRINDERS



Catalogue No. 31

Luther Grinder Mfg. Co.
Milwaukee, Wisconsin
U. S. A.

LUTHER **DIMO-GRIT** GRINDERS

THE WHEEL FOR STEEL

DIMO-GRIT

THE WHEEL FOR STEEL

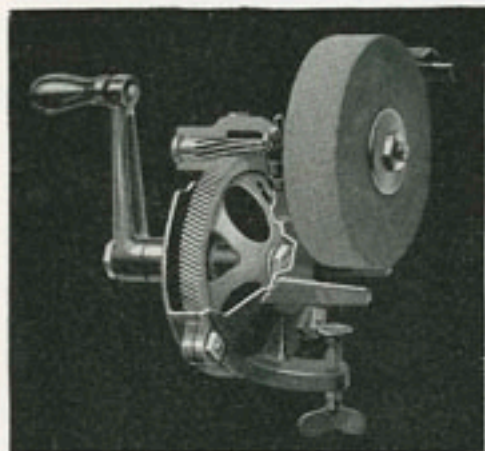
"Dimo-Grit" is our trade name applied to the sharpening substance used on Luther Grinders. No one abrasive can be the best for all classes of work. Consequently we make use of two different abrasives, calling one **Light Dimo-Grit** and the other **Dark Dimo-Grit**. Light Dimo-Grit is aluminum oxide, which is much better for steel than any other abrasive yet discovered or manufactured. Its universal use in factories and machine shops for grinding steel is ample proof of this fact.

However, in the very fine grits **silicon carbide**, which we call **Dark Dimo-Grit**, gives a little better satisfaction. Dark Dimo-Grit is ordinarily used in factories for the grinding of cast iron, bronze and other metals of that class. But in the very fine grits it is a little superior even to aluminum oxide for tool sharpening. In accordance with our practice of always making use of the abrasive that will give the "best satisfaction on that particular class of work for which your grinder is intended," we put **Dark Dimo-Grit** wherever a very fine grit is desired. Consequently, in most of the machines of the "Best Maide" type, that make use of both medium and fine grits, we have adopted Dark Dimo-Grit. In nearly all other cases Light Dimo-Grit is used.

This company, being the oldest and largest in the business, is in position to know from actual experience just what is required to give the best satisfaction to the user. Our trade name Dimo-Grit is applied to both abrasives and means, therefore, the "pick" of the best, having in mind the work for which any grinder is ordinarily used, and just the right one chosen of these two splendid abrasives.



Mechanics' Special "X" Line



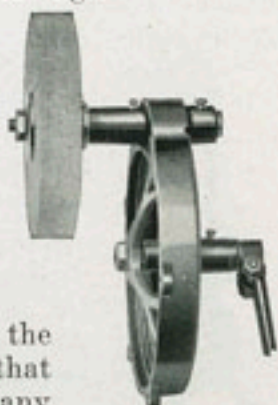
Showing Spiral Cut and Overhanging Gear

The Mechanics' Special type of machine is one that will always be popular. In order to give the trade a range to choose from, we put this up in **three different qualities**. The first is known as the Mechanics' Special "X" type, and without question has more real quality and a more perfect mechanism than any other machine of this type. The second quality is known simply as our Mechanics' Special type and the third as our Challenge.

The perfection of the Mechanics' Special "X" type is the result of infinite detail. One of the first things a man notices in the mechanism is that the gears are not cut square across, but are **spiral** in shape. This is standard in high-priced machinery that must be extremely smooth-running, high-speeded and durable. The spiral-cut gear is much quieter running than spur cut, the teeth wear longer and there is a continuous "pull" because three teeth are in mesh at all times.

It will also be noticed that the teeth of the main gear are suspended **directly over the bearing**, not at one side, as would be the case if the gear wheel had straight spokes. It will be many times longer before the bearings **start** to wear with this sort of a gear, than as if the teeth were not suspended directly over the bearings.

Every pinion is cut from a solid blank of steel, while the gears and bearings are cut from the best quality of grey iron. **Steel against grey iron** is the most approved bearing combination in mechanical use today. The taper fastening on all "X" machines is the accurate and reliable way, and is just as used in the most expensive lathes and drill presses. This is also used in fastening the wheel flange to the grinding wheel shaft and the handle and main gear to the main shaft. It insures a perfect hold, but one that is **easy to release**, in case it is desired to replace any of these parts. The ordinary way, and that used in



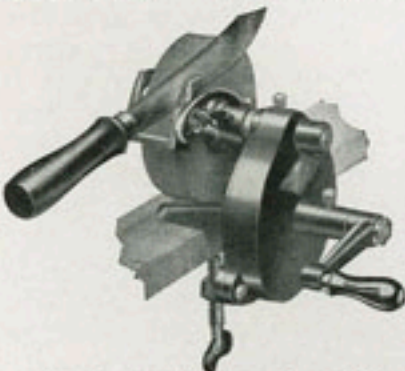
All Bearings in One Casing



LUTHER THE WHEEL FOR STEEL GRINDERS

most competing machines, is to "shrink" or press these parts together. This method cannot insure accuracy, and in replacing it is necessary to furnish more than the one part desired.

Probably the most important feature about this "quality" type is covered by strong patents and is known as the "one-piece casing." Both ends of each shaft run in the same casing. The bearings are



Knife Guide on No. 14X

are reamed out in one operation and are always in perfect alignment. When each bearing is in a separate casing, they can never have such perfect alignment as though they were in one piece. They start to wear quickly and the more they wear the greater does this imperfection become. With Luther Grinders, however, every shaft, gear, arbor and bearing is absolutely true. The distance between the shafts and pinions is not a matter of mere assembling. It is taken care of in the design-

ing of the grinder, and no matter by whom put together, it cannot be otherwise than perfect. The bearings are extra long and large in diameter and have chambers for retaining the oil indefinitely.

Pains have been taken to make this line handsome in appearance as well as efficient in operation. Their high, black enamel and nickel finish at once sets them off in a class by themselves. Each machine of this type is fitted with spring oil cups.

By means of the patented knife guide any one can sharpen knives perfectly. It is very easy to know what bevel is being given the knife. The guide maintains a perfect bevel at all times. The same guide is also used for scissors. In fact, any woman with this guide can sharpen knives and scissors as perfectly as a mechanic could



As Scissors Guide on No. 14X

without it. The combination tool rest and chisel guide, also furnished with this type, is not only a perfect tool rest for any ordinary work, but it is quickly adjusted to give an even bevel to plane bits and chisels.



As Chisel Guide on No. 15X

The Mechanics' Special "X" type of Luther Grinder represents the very highest mechanical construction. At the same time they have a handsome finish and very convenient guides that enable any one to do perfect sharpening.



Dimo-Grit Grinder No. 14X

Mechanics' Special "X" Type

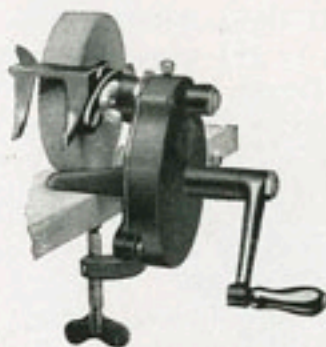
For detailed description, see pages 3 and 4.

Medium sharpening wheel of Light Dimo-Grit, 4 x 1 inches in size.

Weight, boxed, 6½ pounds.

Equipped with Combination Tool and Chisel Guide and Patented Knife and Scissors Guide. Fully guaranteed.

For polishing outfits, see page 18.



No. 14X

Dimo-Grit Grinder No. 15X

Mechanics' Special "X" Type

For detailed description, see pages 3 and 4.

Medium sharpening wheel of Light Dimo-Grit, 5 x 1 inches in size.

Weight, boxed, 9½ pounds.



No. 15X

Equipped with Combination Tool and Chisel Guide, Patented Knife and Scissors Guide, a Special Twist Drill Sharpening Attachment (illustrated on page 11) and Chisel and Plane Bit Attachment No. 1007A. Fully guaranteed.

For polishing outfits, see page 18. For foot-power attachment, see page 19.



LUTHER **DIMO-GRIT** GRINDERS

Dimo-Grit Grinder No. 16X

Mechanics' Special "X" Type

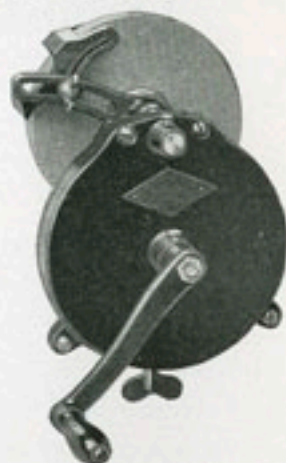
For detailed description, see pages 3 and 4.

Medium sharpening wheel of Light Dimo-Grit, 6 x 1 inches in size.

Weight, boxed, 14 pounds.

Equipped with Combination Tool and Chisel Guide, Patented Knife and Scissors Guide, Luther's Patented Chisel and Plane Bit Guide No. 1007A (described on page 17), and a Special Twist Drill Sharpening Attachment (illustrated on page 11). Fully guaranteed.

For polishing outfits, see page 18. For foot-power attachment, see page 19.



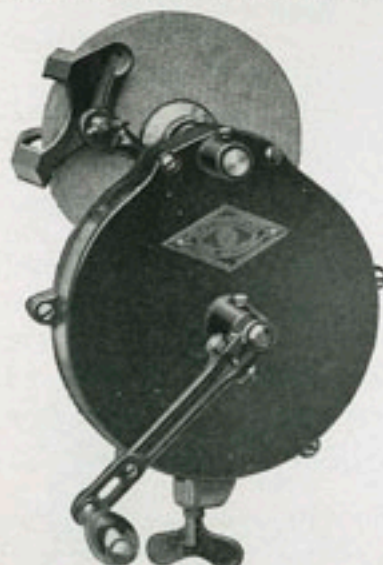
No. 16X

Dimo-Grit Grinder No. 17X

Mechanics' Special "X" Type

For detailed description, see pages 3 and 4.

This grinder is built exceptionally strong and heavy and is absolutely guaranteed to stand the hardest possible usage. It embodies the same high-grade mechanical features in its construction as the other machines of this Mechanics' Special "X" Type. The ideal grinder for the workshop or machinist's bench, or any place where there is a large amount of grinding to be done. We can recommend it unqualifiedly for the hardest kind of service.



No. 17X

No. 17X Is Equipped With

Medium sharpening wheel of Light Dimo-Grit, 7 x 1 1/4 inches in size.

Combination Tool Rest and Chisel Guide.

Luther's Patented Chisel and Plane Bit Guide No. 1007A (described on page 17).

Twist Drill Sharpening Attachment No. 14M (described on page 24).

Weight, boxed, 24 1/2 pounds.

Fully guaranteed.

For polishing outfits, see page 18. For foot-power attachment, see page 19.



LUTHER THE WHEEL FOR STEEL DIMO-GRIT GRINDERS

Dimo-Grit Grinders Nos. 14, 15 and 16

Mechanics' Special Type

The machines of this type do not have as high quality as those of the Mechanics' Special "X" Type. They are, however, very efficient and satisfactory grinders, and in many essentials are the same. The cases are dust-proof and the gears are cut steel.

No. 14 Dimo-Grit Grinder

Light Dimo-Grit grinding wheel, 4 x 1 inches in size, medium grit.

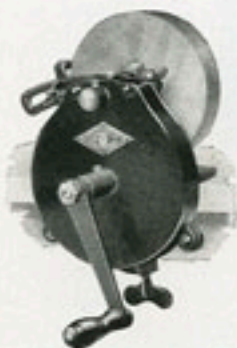
Equipped with tool rest and scissors guide.

Weight, boxed, 6½ pounds.

Fully guaranteed.



No. 14



No. 15

No. 15 Dimo-Grit Grinder

Equipped with Light Dimo-Grit grinding wheel, 5 x 1 inches in size, tool rest and scissors guide.

Weight, boxed, 9 pounds.

Fully guaranteed.

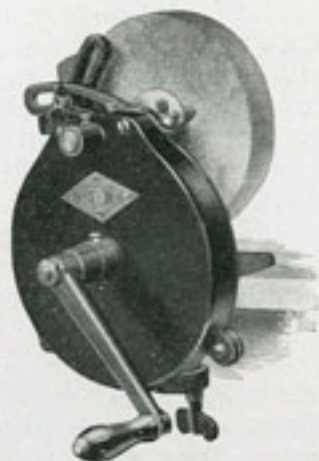
No. 16 Dimo-Grit Grinder

Equipped with Light Dimo-Grit grinding wheel, 6 x 1 inches in size, tool rest and chisel guide.

Weight, boxed, 14 pounds.

Fully guaranteed.

For polishing outfits for the above three machines, see page 18. For foot-power attachments, see page 19. For chisel and plane bit guide, see page 17.



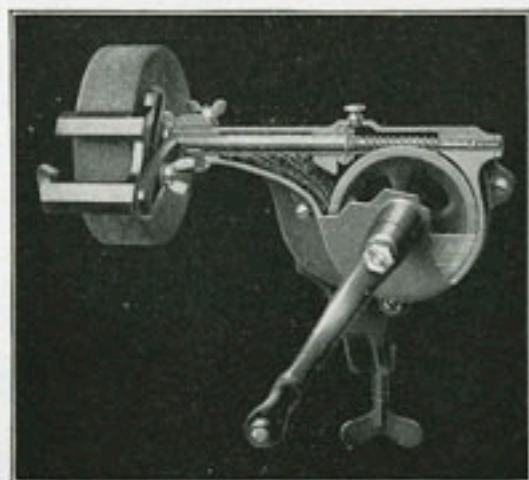
No. 16



LUTHER THE WHEEL FOR STEEL DIMO-GRIT GRINDERS

The Popular "Best Maide"

For many years Luther's "Best Maide" has been by all odds the most popular and widely sold type of hand grinders on the market. The popularity of this type is due to these two essential features of its construction—its worm gearing and the tilting frame.



Interior Construction of "Best Maide"

Worm Gear

The "worm" is the ideal gear to be used where a change of direction is involved and where high speed and light running are needed. Its efficiency depends upon the accuracy and smoothness with which the gear and shaft are cut. After many years' experience we have been able to design machines of our own which turn out hundreds of gears a day that are perfect in every detail. They are **cut from solid steel**; the highest priced cream separators cannot be supplied with better or smoother gears. **Ball bearings** are used to take up all end thrust and although two bearings for the shaft might seem sufficient, we have incorporated into these machines an additional bearing that insures **perfect alignment** and **great wearing surface**. The result is the smoothest, quietest and easiest running sharpening machine it is possible to produce.

Oil Bath

Another new feature of this "Best Maide" type is the oil bath. These machines continually run in oil, which automatically lubricates every part of the machine and makes it run exceptionally smooth and easy.



LUTHER **DIMO-GRIT** GRINDERS

Tilting Frame

A special feature of this "Best Maide" type is that the frame can be tilted so that the grinding wheel will run **at any angle and in any plane**. This means that either side of the grinding wheel can be utilized in sharpening. No matter how awkward a tool may be to "get at," it will be found possible to adjust the frame to an angle that is just right for that particular tool. Our new patented arrangement for swiveling the frame allows **quick and accurate adjustment to any angle**, horizontal or vertical, and holds the machine rigidly in any position.

Double Grit Sharpening Wheel

All machines of the "Best Maide" type (except No. 264) have a **double grit tool wheel** and practically the same results are obtained from this one wheel as though there were two. The body of the wheel is **medium grit** for general sharpening and for quickly grinding down a tool. The finishing, to give an exceedingly smooth and keen edge, is done on the **side face** of the wheel, which is of **very fine grit**. Exactly the same results are obtained as though the tool had been finished up on a fine hone. It is all done, however, on one wheel. This splendid feature is exclusively confined to the machines of this "Best Maide" type.

Driving Gear

The driving gear of this machine is large and extra wide. This insures high speed, prevents creeping or burring, and gives long life under hard usage.

Frame

The "unit" construction makes the frame very rigid. All bearings are in the main piece. This absolutely insures that all the bearings will be in perfect alignment. The gears and ball-bearings are assembled in this case, then the oil is put into it and an oil-tight cap clamped on. The base and swiveling device are fastened to this plate, so that it is possible to detach them from the clamp without removing this oil plate.

Extra Large Bearings

All the gears and shafts are of extra large diameter, which means great wearing surface. This also prevents "springing" and the grinding wheel held by this heavy, substantial steel shaft will continue to **run true and without vibration**. The entire mechanism is enclosed in a dust-proof casing. All of these features make the "Best Maide" type of grinders the **most satisfactory and successful hand-power sharpening machines** that has ever been put on the market.



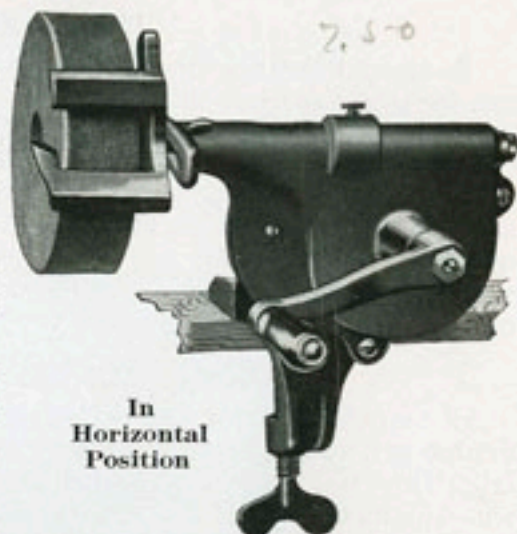
LUTHER DIMO-GRIT GRINDERS

Best Best Maide No. 51

(For further description, see pages 8 and 9.)

Best Maide Grinders Nos. 51, 52 and 53 are very popular among carpenters, mechanics, cabinet makers, butchers, harness makers, and, in fact, every one who has a variety of edged tools to grind. The special features of these machines make them the best possible all-around hand-power grinders.

No. 51 is equipped with a 5 x 1 1/2-inch wheel of Dark Dimeo-Grit, having a medium grit body with an extra fine face. Weight, boxed, 12 pounds. Fully guaranteed.



In
Horizontal
Position

Best Maide No. 52

Best Maide No. 52 is the same as No. 51, except that the wheel is 6 x 1 1/2 inches in size. Weight, boxed, 12 1/2 pounds. Fully guaranteed.

Best Maide No. 53

"The Mechanics' Favorite"

Best Maide No. 53 is the machine equipped with a 5 x 1 1/2-inch double-grit wheel of Dark Dimeo-Grit, the same as No. 51, but in addition it is equipped with Twist Drill Sharpening Attachment No. 523A, Patented Chisel and Plane Bit Guide No. 1007A, and Honing Attachment No. 553A.



In Upright Position

For description of the Twist Drill Sharpening Attachment No. 523A, see opposite page, and note the cut below. For description of the Patented Chisel and Plane Bit Guide No. 1007A, see page 17. For description of Plane Bit Honing Attachment No. 553A, see page 14.

This outfit is one which we can thoroughly recommend, as giving one of our very best values. Weight, boxed, 13 1/2 pounds.



Chisel and Plane
Bit Guide No.
1007A

[See also page 17]

For Buffing and Polishing
Attachments
See page 18

For Foot Power Attachments
See page 19

Special Attachments and
Extras

See pages 10 and 14



Showing Swiveling
Device



LUTHER **DIMO-GRIT** GRINDERS

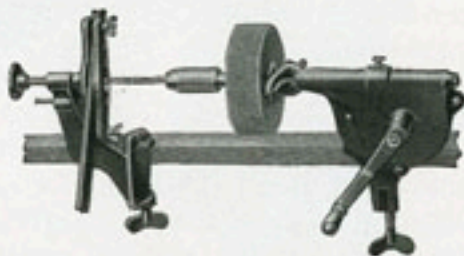
Special Attachments Used on Best Maide Grinders

A very strong feature of the Best Maide Grinders, is that many special attachments are used with them. With these attachments far better work can be done than when tools are held by hand, as is ordinarily done.

Force Feed Drill Attachment No. 521A

By means of a special chuck and bench clamp, the Best Maide Grinders Nos. 51, 52 and 53 are converted into convenient, hand-power, force-feed bench drills. The chuck fits on the regular grinding shaft and takes ordinary drills up to $\frac{1}{4}$ inch. Pieces of iron or steel clamp into this attachment and are easily drilled.

Weight of attachment only, boxed, 4 pounds.



Force Feed Drill Attachment No. 521A



Breast Drill Att. No. 522A

Breast Drill Attachment No. 522A

Best Maide Grinders Nos. 51, 52 and 53 are converted into convenient Breast Drills by the use of a special chuck and breast plate. The chuck will hold ordinary drills up to $\frac{1}{4}$ inch. While the attachment will not equal a regular breast drill, nevertheless it will be found a very useful device. Weight of the attachment only, boxed, 2 pounds.

Twist Drill Sharpening Attachment No. 523A

This universally adjustable Twist Drill Sharpening Attachment can be used either on the round face of the wheel or on the side face. Gives the proper clearance to any twist drill from $\frac{1}{8}$ to $\frac{1}{2}$ inch in size. (Furnished regularly with Best Maide No. 53.) Will fit any of the Best Maide Type. Similar attachments are used on the Mechanics' Special "X" Type, when it is known as No. 156A. Weight, boxed, 1 pound.



Twist Drill Sharpening Attachment
No. 523A



LUTHER **DIMO-GRIT** GRINDERS

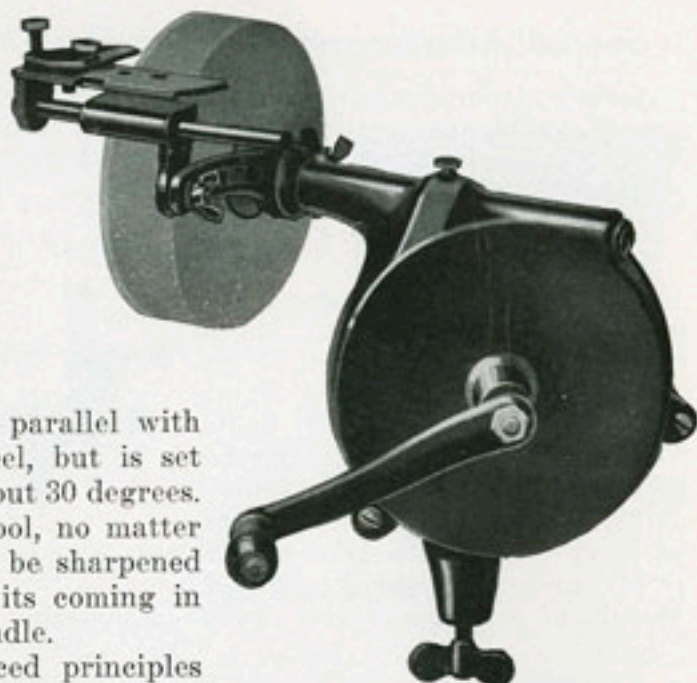
Best Maide No. 56

Similar in construction to the Best Maide No. 51, described on pages 8, 9, 10 and 11, except that the grinding wheel shaft does not run parallel with the main gear wheel, but is set off at an angle of about 30 degrees. By so doing, any tool, no matter of what shape, can be sharpened without danger of its coming in touch with the handle.

The same advanced principles of mechanical construction as in the Best Maide No. 51 are made use of here. This includes the perfect swiveling device, ball bearings, worm gear, and oil-tight features. It is of exceptionally high speed, there being twenty turns of the grinding wheel to one of the handle. In construction and general design, it is very heavy and strong, and will easily meet the most severe requirements in tool sharpening.

Best Maide No. 56 is equipped with a double-faced sharpening wheel of Dark Dimo-Grit, 6 x 1½ inches in size. The body of the wheel is of medium grit, for general sharpening, and the side is of very fine grit for finishing purposes.

The equipment also includes Chisel and Plane Bit Guide No. 1007A, which is illustrated on page 17. For foot-power attachment, use No. 128, described on page 19. For Polishing and Buffing Outfit, use No. 855A, described on page 18. Weight, boxed, 18 pounds.



In Horizontal Position



In Upright Position

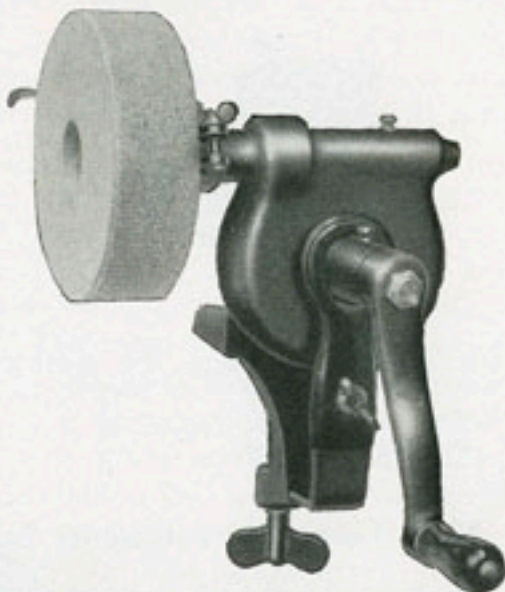


LUTHER **DIMO-GRIT** GRINDERS

Best Maide No. 04

This Best Maide Grinder is built along the general lines that the other Best Maides are.

The drive shaft is of the worm type, the same quality as would be found in a cream separator. All end-thrust is taken up by ball bearings and ball races. The improved swiveling device allows the grinder to be swiveled to any angle. The 4 x 1½-inch Dark Dimo-Grit wheel is double grit, so that when the grinder is swiveled in the upright position, a broad, fine face is exposed on which very fine work is done. When the grinder is in the horizontal position, the medium part of the wheel (which comprises about seven-eighths of the whole) is exposed, on which any and all general grinding can be done.



In Horizontal Position

These Best Maide Grinders are especially good for the household, carpenters, mechanics, butchers and all similar places where general light grinding is to be done. Weight, boxed, 9 pounds.



In Upright Position

For foot-power attachment, use No. 128 (see page 19).

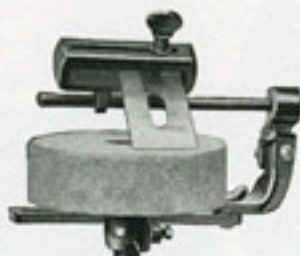
For polishing outfit, use No. 855A (see page 18).



LUTHER THE WHEEL FOR STEEL DIMO-GRIT GRINDERS

Plane Bit Honing Attachment No. 553A

(For the Best Maide Type.)



This attachment is similar to the No. 13M attachment for the Hummer Grinder, illustrated on page 24. It will attach on any of the "Best Maide" type except No. 264.

The chisel or plane bit is held rigidly in a clamp and moved back and forth across the side face of the wheel. This gives the same sort of an edge to the chisel or plane bit as is obtained when it is sharpened with a circular motion on

a fine hone or oil stone, but much superior to it, because it is perfectly true and flat. Such an edge is the best that a fine tool of this kind can possibly have.

Fully guaranteed.

Milk Tester Attachments for the "Best Maide" Type

By means of this set of attachments any of the "Best Maide" grinders become as perfect a Babcock Milk Tester as can be bought at any price. The machines of this type have extremely high speed and are very easy running, two absolutely essential qualities for a milk tester. Ball bearings take not only the thrust and the friction of worm gear but also the entire weight of the attachment. Each milk tester outfit consists of acid, pipette, test bottles, measures and full directions so that any inexperienced person can make very accurate tests of milk.

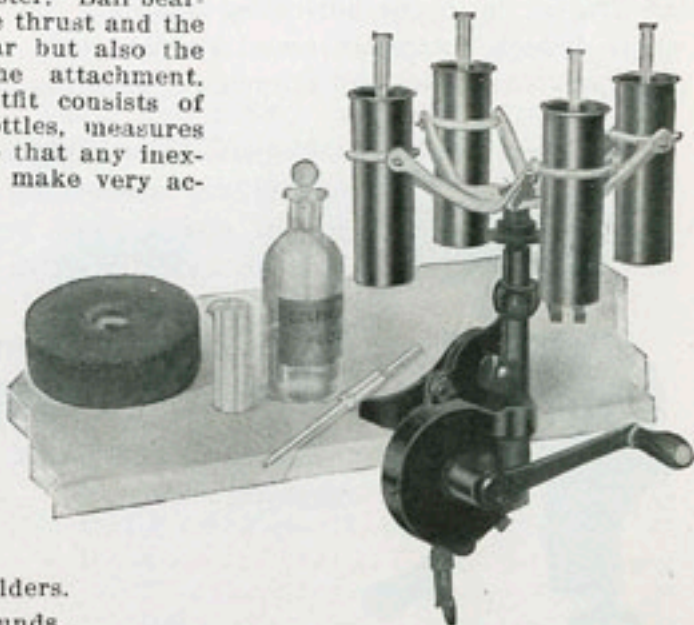
These come as **attachments only** and cannot be used except with some machine of the Luther "Best Maide" type. (Not used on No. 264 or 04.)

No. 1025A consists of two bottle-holders.

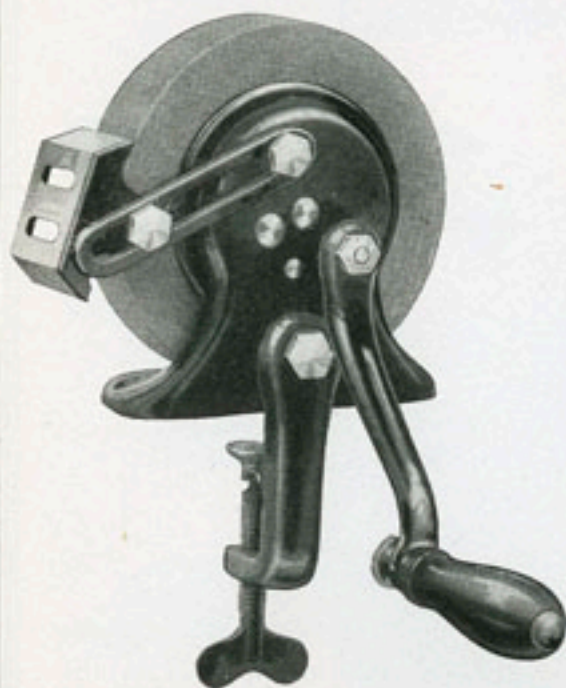
No. 1026A consists of four bottle-holders.

Weight, boxed, 8 pounds.

Fully guaranteed.



Dimo-Grinder No. 35 Compacto



Compact and Powerful

Compactness and high efficiency are the special features of this grinder. The gears and driving mechanism are contained **within the wheel**, so that it can be packed into a box scarcely larger than the grinding wheel itself. This is just the machine that carpenters and plumbers have long needed for their tool chests. Woodsmen, surveyors, miners, sportsmen and many other classes of tool users can in this way have a perfect sharpening device with them all the time; they do not have to carry extra tools in order to have something sharp to work with. This design and feature is strongly patented.

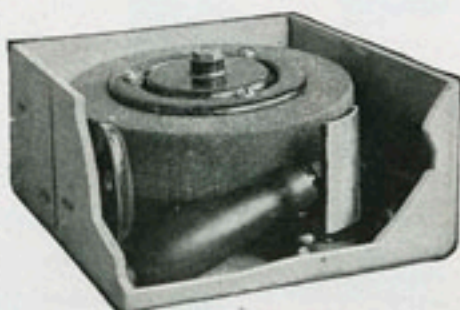
A series of three gears and three pinions, cut from solid steel blanks, gives a high speed to the grinding wheel. All bearings are long and run in the same casing, which insures long life and perfect alignment. The entire gearing is enclosed and dust proof. This feature of one-piece bearings is found only on Luther Grinders, for strong patents prohibit its use by any other company.

The Dark Dimo-Grit wheel, $5\frac{1}{2} \times 1\frac{3}{8}$ inches in size, is of medium grit. The adjustable tool rest makes exact bevels an easy matter.

Weight, boxed, 9 pounds.

For chisel guide, see page 17. For foot-power attachment, see page 19. For polishing outfit, see page 18.

Fully guaranteed.



Quickly Taken Apart for Packing

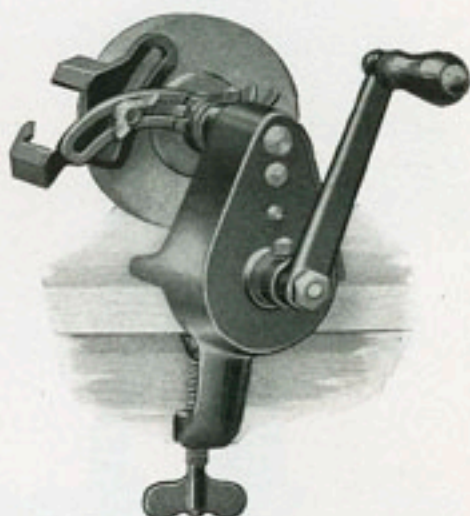


LUTHER DIMO-GRIT GRINDERS

Dimo-Grit Grinders Nos. 104 and 105

Multigear

High speed is a feature of all Luther Grinders but especially of this new design. The speed of the grinding wheel has everything to do with its rapid cutting qualities, its length of life and the smoothness of the finished work. Every turn of the driving handle on this machine causes 30 revolutions of the grinding wheel, giving a speed as great as a power-driven machine.



The entire frame is in one piece, so that the ends of all bearings and gears are in perfect alignment. Its mechanism consists of three gears and three pinions, all cut from solid steel blanks and having long bearings at both ends of the arbors. All bearings are entirely enclosed and protected from dust.

The patented tool rest furnished with these machines is universally adjustable, and can be used for either right or left-hand sharpening. It will give an accurate bevel to chisels and plane bits; has a special scissor guide.



Showing
Series of
Gears

No. 104 has a medium grinding wheel of Light Dimo-Grit, 4 x 1 inches in size.

Weight, boxed, 7 pounds.

No. 105 has a medium grinding wheel, 5 x 1 inches in size.

Weight, boxed, 7½ pounds.

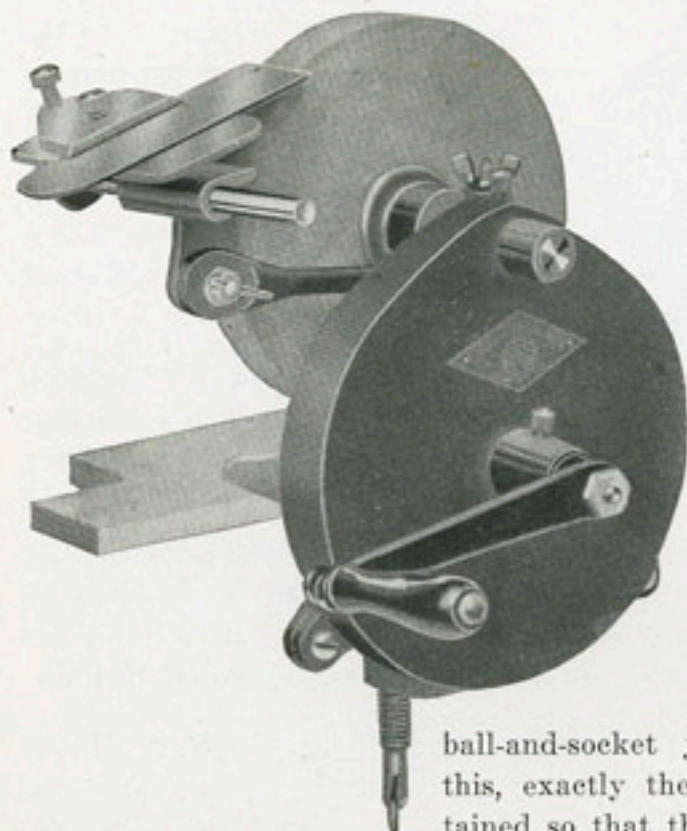
For polishing outfit, see page 18; for foot-power attachment, page 19; for chisel and plane bit guide, page 17.

Fully guaranteed.



LUTHER DIMO-GRIT GRINDERS

Luther's Patented Chisel and Plane Bit Guide No. 1007A



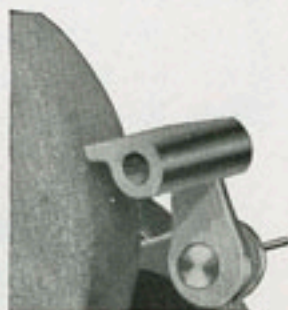
This new patented chisel and plane bit guide is **the finest of its kind on the market.** It is not usually included with machines unless ordered special, but will fit on the following grinders: 14X, 15X, 16X, 17X, 14, 15, 16, 51, 52, 53, 56, 04, 254, 255, 104, 105, 271, 272, 273 and 274.

The special feature of this guide is a ball-and-socket joint. By means of this, exactly the proper angle is obtained so that the chisel is sharpened square across the face of the wheel.

The chisel clamps in a carriage that moves back and forth across the face of the wheel. It gives a slightly concaved edge.

The chisel guide regularly furnished with several of the different types is not as perfect a device as the above, in that the chisel must be held by hand.

Fully guaranteed.



No. 1007A as Tool Rest



Buffing and Polishing Outfits

At very small expense it is possible to equip most of our grinders with polishing and buffing outfits, which will add greatly to the usefulness of any grinder. They are adapted to a wide class of work. Different compounds are furnished for different classes of polishing and buffing. The outfits, therefore, are complete for all kinds of polishing and buffing, from removing dirt and rust from shovels, to polishing brass, nickel and silverware. Complete directions accompany each outfit so that the proper compound and wheel may be used for various metals.

Each outfit consists of a felt polishing wheel, cloth buffing wheel, a flannel buffer, four different polishing compounds for different metals, and for grinders that have not an extended shaft, a taper spindle is included.

The polishing wheel is coated with Dimo-Grit powder that may be removed from time to time as it wears off; any good polishing material may be substituted for Dimo-Grit. It is just the thing for putting a bright surface on any tool and for removing rust, dirt, etc.

The cloth and flannel buffing wheels are to be used with the various compounds for metal of different kinds.

Outfit **No. 852A** is for Grinders Nos. 14X, 15X, 14 and 15.

Outfit **No. 852½A** is for Grinders Nos. 16X, 16, 35, 104 and 105.

Outfit **No. 853A** is for Grinder No. 17X.

Outfit **No. 855A** is for Grinders Nos. 04, 51, 52, 53, 254, 255 and 97.

Outfit **No. 850A** is for Grinders Nos. 271, 272, 273, 274, 304, 305 and 306.

Each outfit is nicely boxed with full directions, so that any one can do high-class polishing, accompanying each.



Foot Power Attachments for Hand Grinders

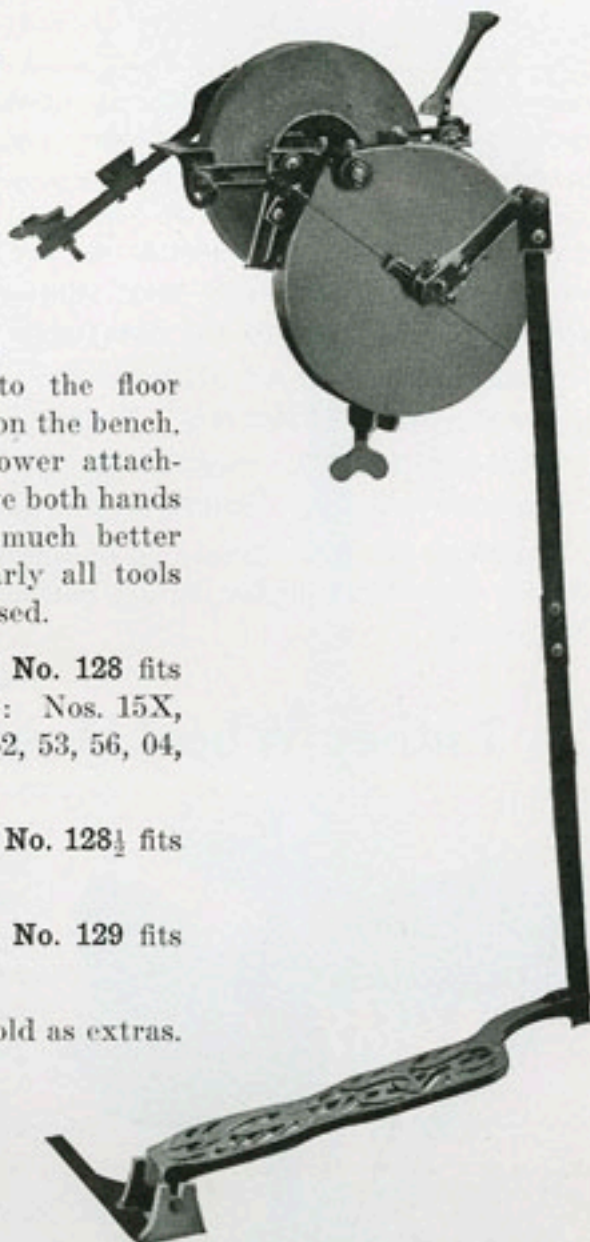
With the following attachments, it is very easy to make efficient foot-power machines of many of our hand-power grinders. These attachments are made of metal and are practically indestructible. They screw to the floor while the grinder remains on the bench. With one of these foot-power attachments it enables you to have both hands free for sharpening and much better work can be done on nearly all tools when both hands can be used.

Foot-Power Attachment No. 128 fits on the following machines: Nos. 15X, 16X, 15, 16, 104, 105, 51, 52, 53, 56, 04, 254 and 255.

Foot-Power Attachment No. 128½ fits grinder No. 35.

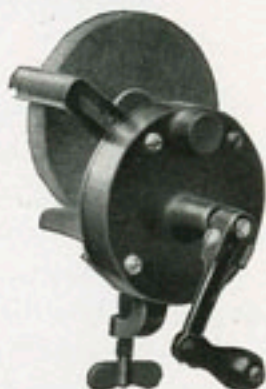
Foot-Power Attachment No. 129 fits grinder No. 17X.

These attachments are sold as extras.



Challenge Line

Although this line is fully equal to nearly all competitive machines, it is the lowest-priced of its type in the entire Luther line. The frame is made in two separate halves, one bearing in each half, while the other Luther machines of this "straightaway" type make use of the one-piece casing. But this construction enables us to put them out at much lower prices. For many classes of work, they will be found very satisfactory, and, with careful use, will give long service. They have easy running cut gears; are fully enclosed and dust-proof.



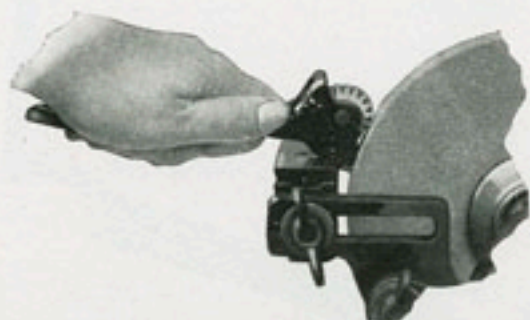
Challenge No. 5C

Challenge No. 4C is equipped with a sharpening wheel, 4 x 3/4 inches in size, and a tool rest. Weight, boxed, 5 1/2 pounds.

Challenge No. 5C. Same as 4C, but with a sharpening wheel 5 x 3/4 inches in size. Weight, boxed, 6 pounds.

Challenge No. 6C. Larger all around than the above. Equipped with a wheel 6 x 1 inches in size and a tool rest. Weight, boxed, 12 pounds.

Luther Wheel Dresser No. 141



Dressing the Round Face

Through misuse, a wheel sometimes becomes gummed up or worn lopsided. With one of these wheel dressers, any wheel can be put in shape again in a very short time. Can be used to dress any face of the wheel. Heavy; impossible to get out of order.

Can also be used as a wrench.



LUTHER **DIMO-GRIT** GRINDERS

Dimo-Grit Grinder No. 70 "Old" Hummer

This grinder occupies a very small space. It is operated by one treadle while standing and is especially adapted to granite workers' tools, or others where frequent but not long-continued work is required.

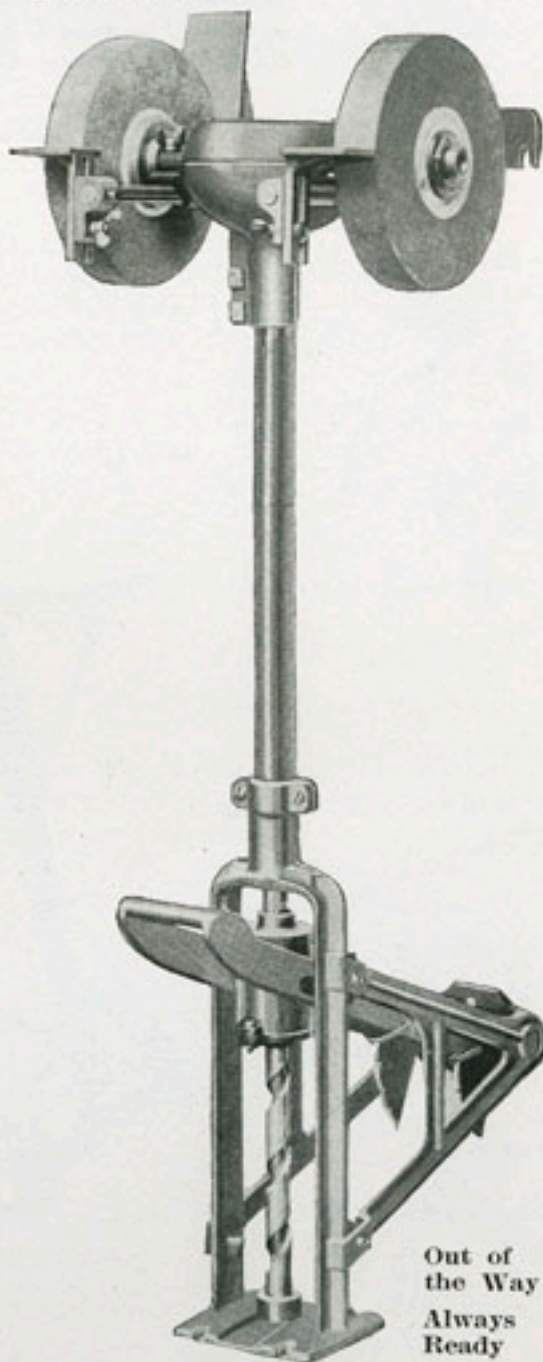
This grinder is simply and strongly built, with but three bearings and no ratchet. The gearing is enclosed, dust-proof and oil-retaining. Power is transmitted by means of a $\frac{3}{4}$ -inch steel shaft.

Two universally adjustable tool rests make it possible to get extreme accuracy in sharpening. The machine is equipped with two Light Dimo-Grit wheels, 7 x 11 $\frac{1}{4}$ inches in size, one fine grit and the other medium grit. Luther's chisel and plane bit guide is always in place to give exactly the right bevel to any chisel or plane bit.

Height from floor, 40 inches.

Weight, boxed, 55 pounds.

Fully guaranteed.



Out of
the Way
Always
Ready



LUTHER DIMO-GRIT GRINDERS

Dimo-Grit Grinders Nos. 271, 272, 273 and 274 Hummer

Steel shaft drive.

Enclosed, dust-proof bearings.

Bevel gears.

Steel tubing standard.

Channel iron frame.

Malleable iron parts.

Head can be swiveled to any angle.

Many special attachments.

Protected by strong patents.

Universally adjustable tool rests.

Light Dimo - Grit wheels.

Fully guaranteed.



LUTHER DIMO-GRIT GRINDERS

This Steel-Frame, Shaft-Drive Grinder Is Put Up in Four Different Outfits



No. 271

Outfit No. 271 is known as our **4-attachment outfit** and consists of the machine equipped with two Light Dimo-Grit wheels, 6 x 1 3/8 inches in size, one medium grit and the other coarse, with a universal tool rest and a chisel and plane bit guide.

Weight, boxed, 62 pounds.

Outfit No. 272 is known as our **12-attachment outfit**, and consists of No. 271—4 attachments—and in addition:

- 5 Dimo-Grit razor hone.
- 6 Dimo-Grit scythe stone

- 7 Dimo-Grit saw gummer, 5 x 5/8 inches.
- 8 Felt polishing wheel, 5 x 1 inches.
- 9 Fine Dimo-Grit wheel, 5 x 1 3/8 inches.
- 10 Cloth buffing wheel.
- 11 Dimo-Grit oilstone.
- 12 Dimo-Grit pocket hone.

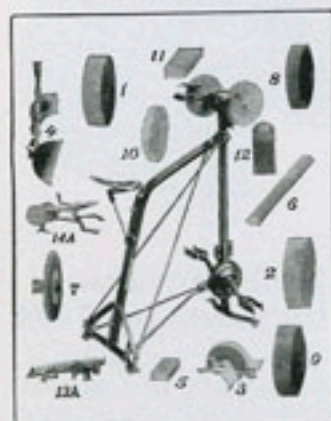
Weight, boxed, 67 pounds.



No. 272

Outfit No. 273 is known as our **Farmer's 14-attachment outfit**, and consists of Outfit No. 272 and in addition:

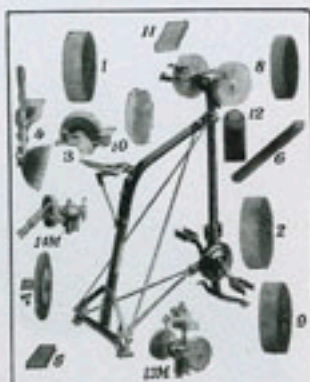
- No. 13A—Sickle grinding attachment.
- No. 14A—Disc grinding attachment.



No. 273

Outfit No. 274 is known as our **Mechanics' 14-attachment outfit**, and consists of Outfit No. 272 and in addition:

- No. 13M—Plane bit honing attachment.
- No. 14M—Drill sharpening attachment.



No. 274



LUTHER DIMO-GRIT GRINDERS

Sickle Attachment No. 13A

This attachment sharpens a mower knife the "natural way." The grinder head is swiveled around so that the wheel is at right angles with the operator, who holds the sickle against the side face of the wheel. A long support carries the weight of the sickle. This attachment insures accuracy and a smooth edge and is quicker than any other method. Where sickles are badly nicked, however, Sickle Attachment No. 23A, described on page

25, will be more satisfactory than No. 13A, which sharpens on the side face of the tool wheel.

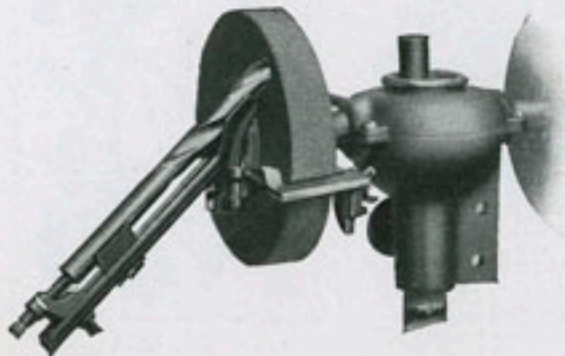


Disc and Plow Coulter Grinding Attachment No. 14A

This attachment will take any disc between 14 and 28 inches in diameter and give it just the proper bevel. The work can be done automatically or the disc can be rotated by hand.

Plane Bit and Honing Attachment No. 13M

By means of this attachment the same sort of an edge is given to a plane bit or chisel as is given when the tool is sharpened with a circular motion on a hone, but it is done in about a twentieth of the time. The chisel or plane bit is clamped in a malleable cross carriage and moved across the surface of the wheel. Wheel No. 9 is used on the perpendicular shaft; this wheel must be ordered special. No. 13M can also be used to hold the tool on the round face of the wheel.



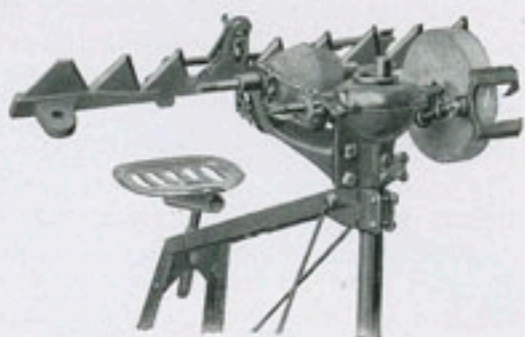
Drill Sharpening Attachment No. 14M

This is a simple, inexpensive, yet quite efficient device for sharpening twist drills. While it does not have all the fine adjustments of our higher priced attachments, for ordinary work on drills $\frac{1}{4}$ inch in size and larger, it gives good satisfaction.



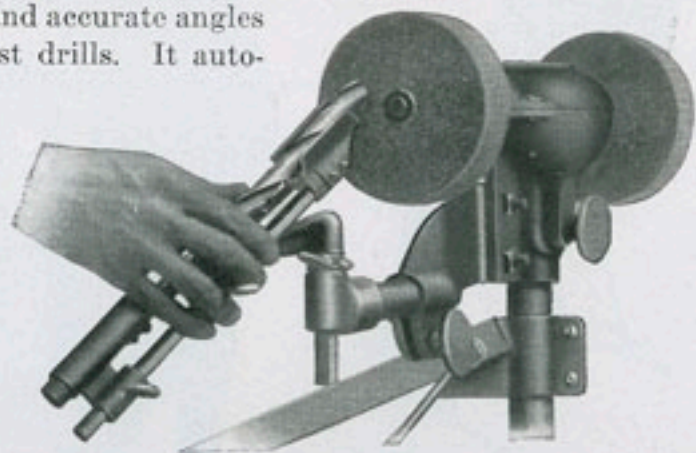
Bevel Sickle Wheel Attachment No. 23A

Where sickles have been used on stony or gravelly soil and are badly nicked, the beveled sickle wheel is a better method of sharpening than to use the side face of a tool wheel, as is done in the No. 13A Attachment. We have, therefore, perfected an attachment whereby the Hummer can be fitted with the same sickle holder and sickle wheel that have made the "Farm Special" and "Spartan" types so popular. Two bolts attach it to the grinder head and power is transmitted to the special shaft by a short steel chain. A beveled Light Dimo-Grit sickle wheel is included with the attachment. Weight, boxed, 12½ pounds.



Drill Sharpening Attachment No. 904A

This attachment is used for giving proper clearance and accurate angles in sharpening twist drills. It automatically regulates the proper clearance for the diameter, having all the attachments of other drill sharpening devices costing several times our price. Much superior to and more adjustable than our No. 14M.

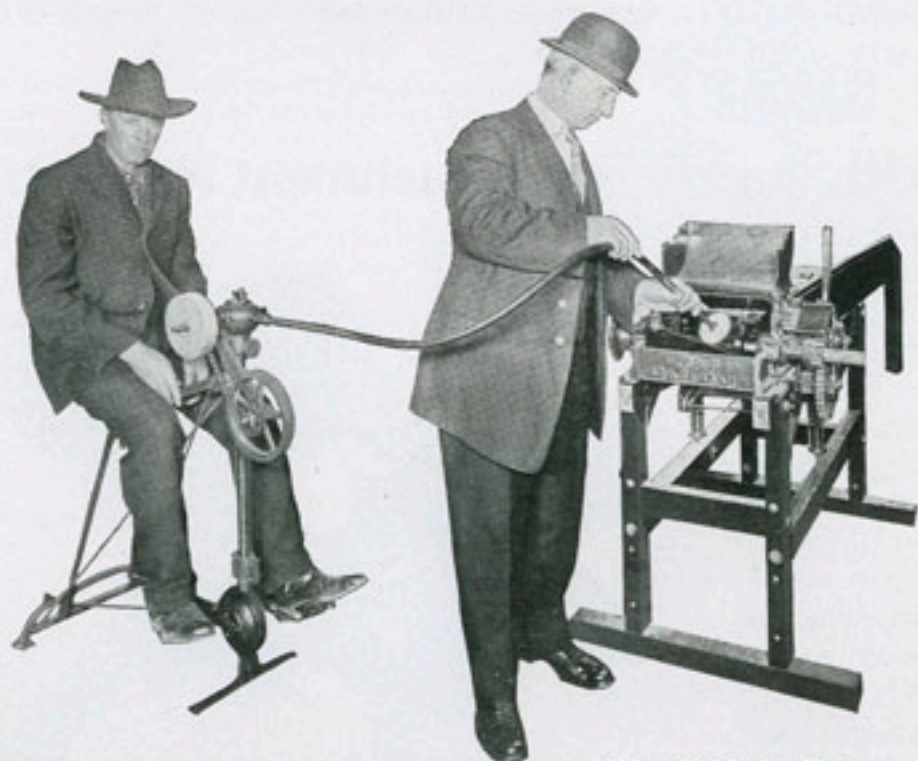


Flexible Shaft Grinding Attachment No. 994A

By means of this shaft grinding can be done on work that is too heavy to be held to one of the regular grinding wheels or that is difficult of access. This shaft is our own patent and transmits the power direct from the grinding wheel shaft with a minimum loss by friction; attaches in place of one of the grinding wheels.

Its special use is on **sharpening the knives of ensilage cutters without removing them from the machine.** It is also used for grinding and polishing automobile parts; for putting an edge on the flutters of corn huskers; for sharpening horseshoe calks on horses' feet, and the guards of mowing machines. This is the same shaft as is used with Grinder No. 47, which is illustrated on page 40.

Since putting out our new improved Hummer Grinder, the flexible shaft is attached to one of the regular grinding wheel spindles, after taking off one of the grinding wheels. (The machine is no longer made with the third horizontal spindle.)

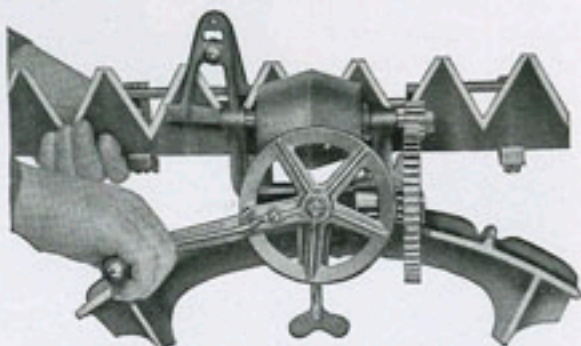


No. 994A in Use



Dimo-Grit Grinder No. 83 Spartan

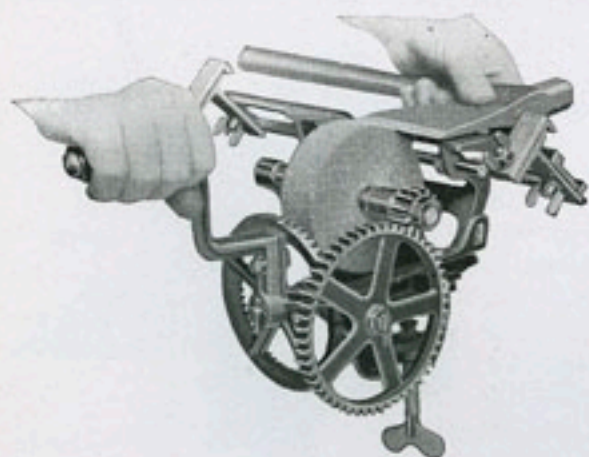
Grinder No. 83 is a simple, compact and serviceable hand-power sickle and tool grinder especially suited to farm work. It can be clamped either to a mower wheel or to a bench.



An Efficient Sickle Grinder

Its driving mechanism consists of one bevel and two spur gears, which give a **simple transmission of power**. The bearings are long and large in diameter, insuring **durability and ease of running**. A long handle affords a big leverage. Its high speed means rapid cutting and long life to the grinding wheels.

The sickle holding attachment is the same as is used on the "Farm special" type. The same bevel is given to the sections by the sickle grinding wheel as they had when new. Although the device is partly automatic the grinding of the sickle is at all times **under the control of the operator**.



As a Tool Grinder

A light Dimo-Grit tool grinding wheel, $4\frac{1}{4} \times 1\frac{3}{8}$ inches in size, is also furnished with each machine, so that it can be used the year around. The sickle holding attachment forms a very satisfactory tool rest.

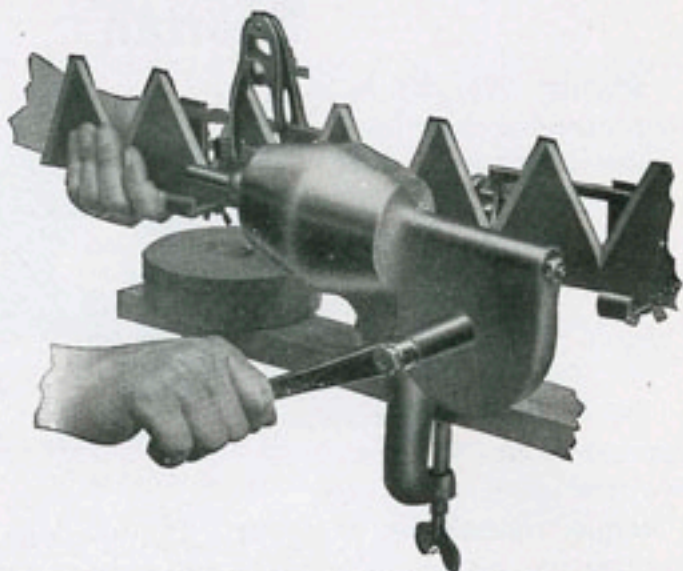
Chain drive can be furnished if desired; gear drive furnished regularly. Weight, boxed, $16\frac{1}{2}$ lbs.



LUTHER THE WHEEL FOR STEEL DIMO-GRIT GRINDERS

Best Maide Sickle and Tool Grinders

In putting out these new machines we are at once placing farm sickle grinders in the class of strictly high grade machines. Heretofore those offered for farm trade have been of the cheapest sort, with noisy cast gears and nothing to keep dust and grit out of the bearings and gears.



No. 255 as a Sickle Grinder

In the quality of material and workmanship there is about the same difference between this type and the old style as between a cream separator and a fanning mill.

All the features of Nos. 51 and 56 (described on page 8) are embraced in this type of high-class sickle and tool grinders. Quickly attached to mower wheel or bench. They have the same ball-bearings, worm shaft, automatically cut steel gears, large wearing surfaces, enclosed and dust-proof parts and universal swiveling device.

Sickle Holding Device

The sickle holder is the most satisfactory in use today, one which we have been putting out for years on our "Farm Special" type of machines. The same bevel is given to the sections by the beveled sickle wheel that they had when new. Although the device is partly automatic, the grinding of the sickle is at all times under full control of the operator.



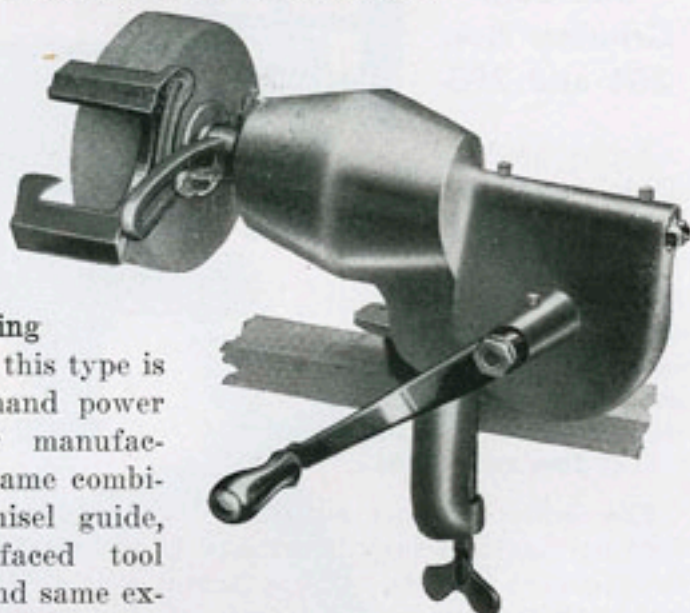
In Upright Position

Splendid for Clippers



LUTHER **DIMO-GRIT** GRINDERS

"Best Maide" Sickle Grinders Nos. 254 and 255



No. 255 as a Tool Grinder

Tool Grinding

As a tool grinder this type is the equal of any hand power tool grinder ever manufactured. It has the same combination tool and chisel guide, the same double-faced tool sharpening wheel and same exclusive patented features as the No. 51 and No. 36.

The tool wheel is **ideal** for sharpening **clipper blades**. Leaves them even, true, smooth and keen.



Guide
Chisel

No. 254. Double-faced medium-and-fine tool sharpening wheel of Dark Dimo-Grit, 4 x 1½ inches in size, beveled Dark Dimo-Grit sickle sharpening wheel, and special improved tool and chisel guide. Weight, boxed, 16½ pounds.

No. 255. This machine is identical with No. 254, except that its double-faced tool sharpening wheel is 5 x 1½ inches in size. Weight, boxed, 18 pounds.

For polishing outfit, see page 18. For foot-power attachment, see page 19. For **special attachment**, see page 14.

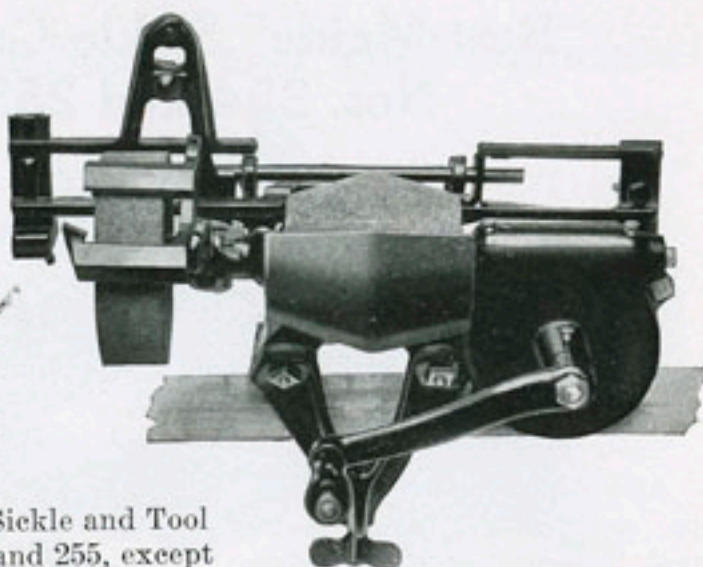
Fully guaranteed.



LUTHER DIMO-GRIT GRINDERS

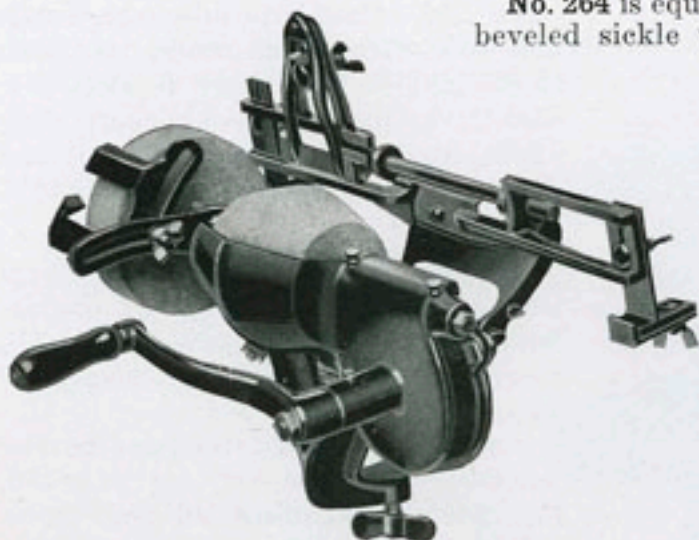
"Best Maide" Sickle and Tool Grinders Nos. 264 and 265

A very practical sickle and tool grinder that can be used the whole year around. The machine is built on the same plan as the Best Maide Sickle and Tool Grinders Nos. 254 and 255, except that it does not swivel.



The sickle holder is adjustable to hold firmly any make of bar. Two half-sections may be ground at the same time or one, just as the operator chooses. The grinding is at all times under full control of the operator, and it takes only one person to use the machine successfully. Can be clamped to any mower wheel or bench. During the mowing season the tool wheel is removed. At all other times it is on the machine ready to sharpen anything on the farm that needs to be sharpened.

No. 264 is equipped with a double beveled sickle wheel and a medium grit tool wheel $4\frac{1}{4} \times 1\frac{3}{8}$ inches, of Light Dimo - Grit, combination adjustable tool rest, and sickle holder. Weight, boxed, $16\frac{1}{2}$ pounds.



No. 265 has the same equipment as No. 264 except the tool wheel, which is $5 \times 1\frac{3}{8}$ inches in size. Weight, boxed, 17 pounds.



Dimo-Grit Grinder No. 60

Gem Type



This machine is compact, well built, and is a very practical tool for plumbers, carpenters, farmers; in fact, for any who desire a portable foot-power grinder for general work. It is similar to the "Farm Special" type, but is one of our earlier styles. Constructed for heavy grinding and to stand hard usage. The frame is of selected maple, strongly braced, and fitted with an adjustable metal seat. The chain is of steel. The shaft is extended and threaded, which permits the use of two grinding wheels at the same time.

The grinder is equipped with one medium grit tool wheel of Light Dimo-Grit, 5 x 13 $\frac{3}{8}$ inches in size.

Weight, boxed, 34 pounds.

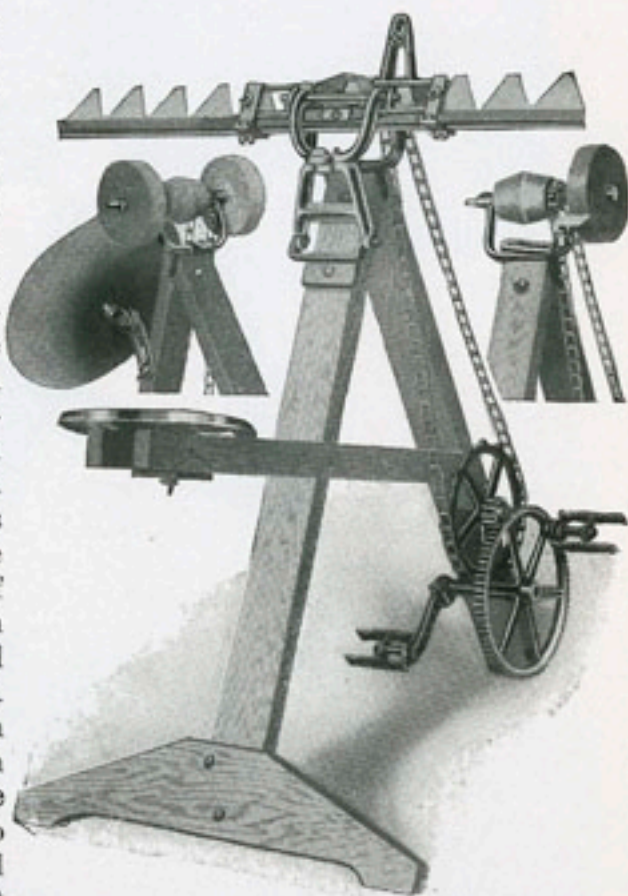


Dimo-Grit Grinders Nos. 61, 62 and 63

Farm Special Type

This style is well adapted to general tool grinding, but more especially for farm requirements.

The frame is solid and heavy, built of selected maple and strongly braced. All the gears are cast exceptionally heavy. To allow free access to the sharpening wheels from any angle, the main gearing is placed at the bottom instead of at the top; a guard keeps the trousers from getting caught in the gears. The chain is of steel. The metal seat can be adjusted to any desired distance from the pedals. All grinding wheels run on the same shaft, which will carry three at one time, allowing any tool to be sharpened on the wheel best adapted to it without having to remove the others.



Grinder No. 63

The tool grinding wheels are of Light Dimo-Grit, 5 x 13/8 inches in size, with a rigid tool rest for insuring accuracy.

The sickle sharpening attachment consists of a Light Dimo-Grit beveled sickle cone, 3 1/2 x 3 1/2, and a sickle holder that will hold rigidly any make of sickle. This gives to any section the same bevel it had when new. Two sections can be sharpened at the same time or only one, as desired, for at all times the grinding is in the



LUTHER THE WHEEL FOR STEEL GRINDERS

operator's control. The sickle is held in place by a spring that allows it to slide easily. The section next the draw-head is the only one which cannot be sharpened clear down to the bar.

The disc holder will take easily any disc between 14 and 28 inches in diameter. This is attached to the front leg of the frame, out of the way of the operator.

This Machine Is Put Up in Three Different Outfits



No. 62

No. 61 consists of the machine equipped with one fine and one medium tool sharpening wheel and the tool rest. Weight, boxed, 40 pounds.



No. 61

No. 62 includes the machine equipped with sickle grinding wheel, sickle holder, one medium tool grinding wheel and the tool rest.

Weight, boxed, 46 pounds.

No. 63 includes Outfit No. 62 and in addition a coarse tool grinding wheel, polishing wheel and the disc holding attachment. (See the large cut.)

Weight, boxed, 51 pounds.

Fully guaranteed.



No. 1052A Power Attachment (see page 34)



LUTHER DIMO-GRIT GRINDERS

Power Attachments for Hummer and Farm Special

The foot-power Hummer and Farm Special Grinders may be readily turned into excellent power machines. The attachments for this purpose are easily put on and the strong and durable qualities of these grinders insure perfect satisfaction in their use as power machines. The change is easily and quickly made from foot-power to power and back again. The size of your driving pulley and the speed at which it turns determine which one of the following attachments are needed:

No. 1054A is a small 13 $\frac{1}{4}$ -inch pulley that attaches to the grinding wheel shaft of either the Hummer or Farm Special in place of one of the grinding wheels. The right speed for this is from 2,000 to 3,000 revolutions per minute. On the Farm Special it cannot be used for sickle sharpening, but does not interfere with other kinds of grinding. With the Farm Special the chain is slipped off the upper sprocket and with the Hummer Grinder the lower gear wheel is removed.



No. 1054A on Hummer

pedal. This attachment is illustrated on page 33. The Farm Special can be used for sickle sharpening when this pulley is used. It should make from 70 to 115 revolutions per minute.

No. 1051A is for the Hummer Grinder and is a 10-inch machined pulley that attaches to the lower gearing in place of the right-hand pedal. It should make from 90 to 130 revolutions per minute.

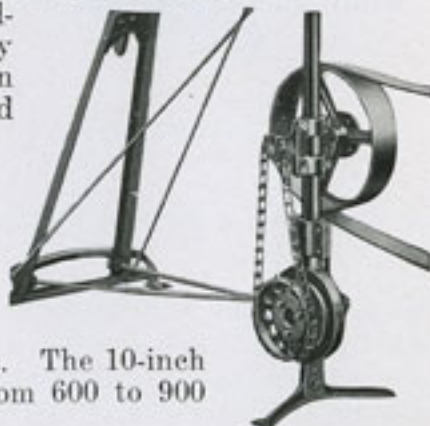
No. 1053A is for the Hummer Grinder and is made up of a reduction gearing and machined 10-inch pulley. It attaches easily by bolting the upper clamp in place on the frame and removing one of the pedals. The 10-inch pulley of No. 1053A should make from 600 to 900 revolutions per minute.

All the above are sold as extras.



No. 1054A on Farm Special

No. 1052A is for the Farm Special and is a 10-inch machined pulley that attaches with three bolts to the lower gear wheel in place of the right-hand wheel in place of the right-hand wheel. The Farm Special can be used for sickle sharpening when this pulley is used. It should make from 70 to 115 revolutions per minute.

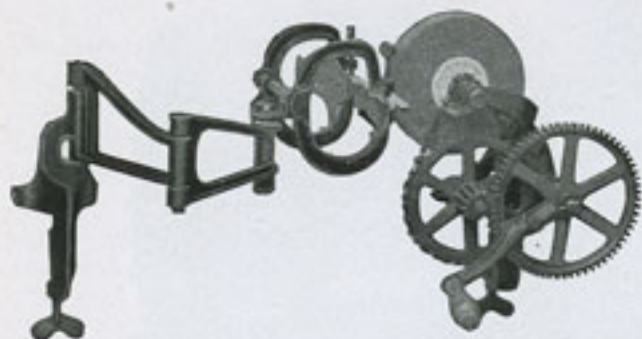


No. 1053A



LUTHER THE WHEEL FOR STEEL GRINDERS

Bench Skate Grinding Attachment No. 912A



This attachment can be clamped to a bench and used with any hand or power bench grinder having a tool rest on which the runner may rest while being sharpened. With it any skate can be sharpened easily

and quickly. The skate runner is given a smooth, even edge and is hollow-ground just the proper amount. The attachment allows the skate to move freely across the face of the wheel, but holds it rigid and true. Heavily and strongly built. (Grinder shown in illustration not included.)

Weight, boxed, 8 pounds.

Luther Wire Tightener No. 140

The Luther Wire Tightener is a superior patented device for **tightening slack wire**. All the wire tighteners now on the market are for **putting up fences**, and the



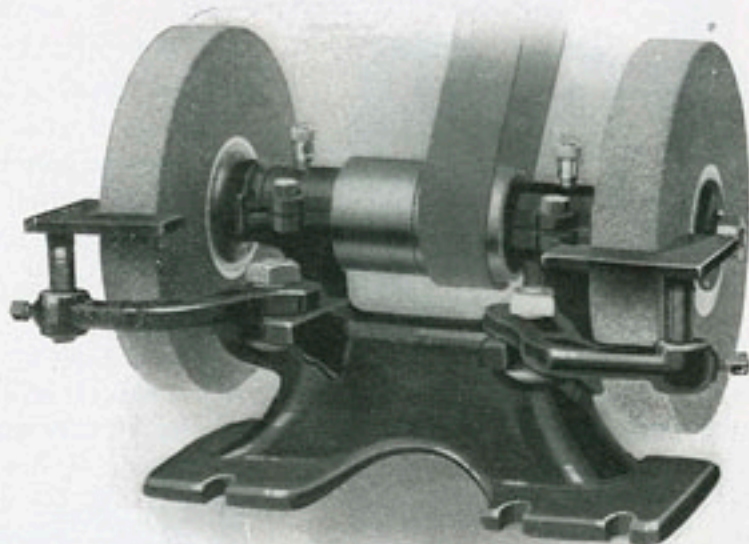
Luther Fence Tightener can also be used for this purpose. But its great value lies in the fact that it **quickly tightens slack wire**, you fastening the wire to the **same post** that you use the wire tightener on. This tool is made very heavy, of the best grade of gray iron. Nothing on it that can wear out in a lifetime of ordinary use. Nicely finished in black enamel.

Weight, boxed, 5 pounds.



LUTHER **DIMO-GRIT** GRINDERS

Power Bench Grinders



No. 310

The large number of gasoline engines now being used has created an immense market for **dependable** power grinders, but which will not be too expensive for use on any farm or the smaller machine shops. We have been putting out power bench grinders for a great many years and these machines represent some of the best values in the Luther Line.

Dimo-Grit Grinder No. 310

This strong, heavy power grinder is constructed according to the best mechanical principles. It can be bolted to any bench and its heavy design makes it the ideal grinder for use with power of any sort. It has long, wide, steel-on-gray-iron bearings, dust-protected and adjustable for taking up wear. An idler pulley allows the belt to continue running, even though the grinder itself is not being used. The power can come from beneath, from the side, or from above with equal efficiency. It is an ideal grinder for any workshop that has available power. Spring oil cups and overhanging flanges protect the bearings from dust and grit. Its tool rests are adjustable in-and-out or up-and-down, giving great assistance in sharpening any tool.

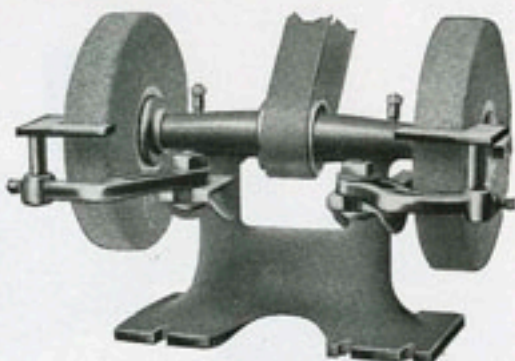
Disc Grinding Attachment No. 925A and Sickle Grinding Attachment No. 945A will fit on this grinder, but do not come with it unless ordered special. (See page 39.)

No. 310 is equipped with two universally adjustable tool rests and two Light Dimo-Grit sharpening wheels each 7 x 1 1/4 inches in size. One of these is medium grit and the other is coarse. The pulleys are 2 1/2 x 2 1/2 inches in size and should make about 2,000 revolutions per minute. Weight, boxed, 34 pounds.

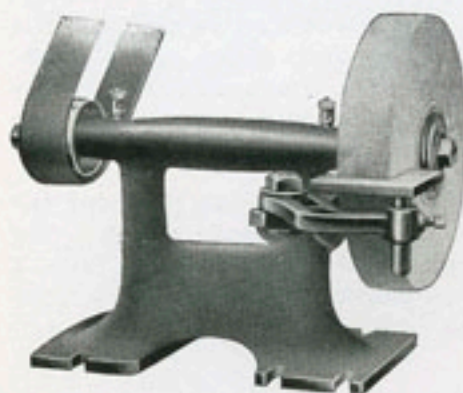


Dimo-Grit Grinders Nos. 308 and 309

These are practically the same as the No. 310, except that the bearings are not adjustable and there is one pulley only, the same size as on the No. 310. They have, however, very long bearings and will last a lifetime on any farm or small machine shop. Attachments Nos. 925A and 945A may be used on No. 308 and 309, but not on No. 306. (See page 39.)



No. 309



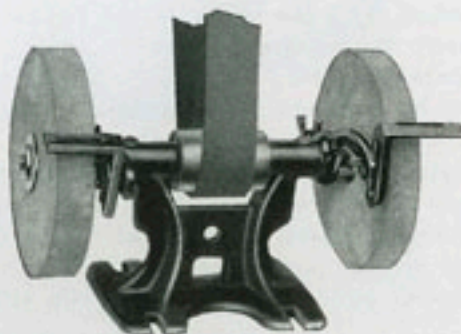
No. 308

No. 309 is equipped with two sharpening wheels of Light Dimo-Grit, 7 x 1 $\frac{1}{4}$ inches in size, one medium grit and the other coarse, and two universally adjustable tool rests. Weight, boxed, 32 pounds.

No. 308 is equipped with a medium sharpening wheel of Light Dimo-Grit, 7 x 1 $\frac{1}{4}$ inches in size, and has a universally adjustable tool rest. Weight, boxed, 26 pounds.

Dimo-Grit Grinder No. 306

This is a lighter machine of the same type as the No. 309, and is the equal of that machine in all features except for its weight and the size of the wheels. Equipped with two wheels of Light Dimo-Grit each 6 x 1 inches in size, one medium grit and the other fine grit. Weight, boxed, 14 pounds.

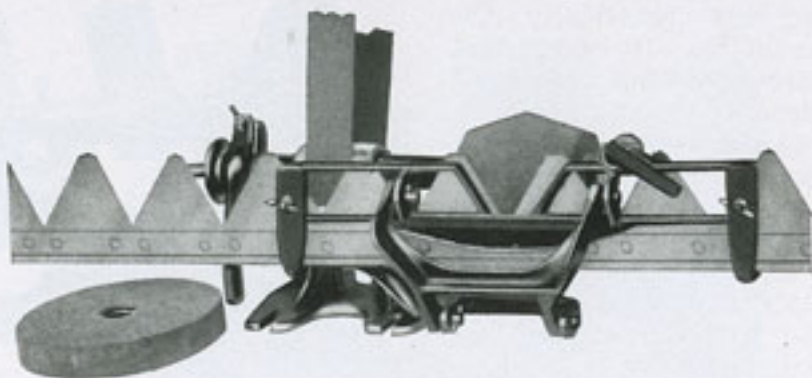


No. 306



LUTHER DIMO-GRIT GRINDERS

Dimo-Grit Grinder No. 304



This is the same machine and base as the No. 306. One tool wheel is replaced by a special double-bevel sickle sharpening wheel, and a sickle-holding attachment is added. The sickle-holding attachment furnished is one that will take any make of sickle. The grinding is at all times in full control of the operator.

In order to do away with the necessity of putting on and removing the belt each time when using the machine, we have equipped this No. 304 with an endless fibre belt 15 feet in length. It is also equipped with a medium tool sharpening wheel of Light Dimo-Grit, 5 x 1 inches in size, beveled sickle sharpening cone, tool rest and sickle-holding attachment. Weight, boxed, 16 pounds.

Power Bench Grinder No. 305C

The feature of this power grinder is that it is furnished with an extra large, heavy clamp so that it is easily moved from place to place. It is especially desirable for use with an ensilage cutter, for the grinder can be attached to any convenient cross-piece of the machine or even to the drive-wheel of a threshing machine engine and the same power sharpens the knives that is used to drive the cutter. It is also highly desirable wherever there is any light tool grinding to be done or any sort of power available. A one-quarter horse-power electric motor is sufficient to run either the 304, 305C or 306.



No. 305C

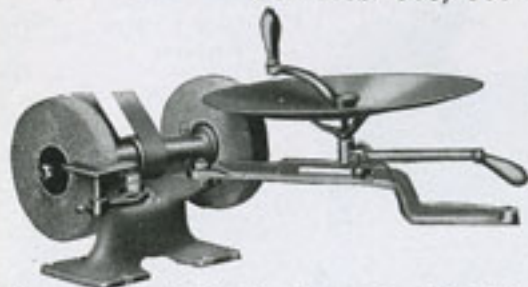
No. 305C is equipped with a Dark Dimo-Grit wheel, 5 x 1 $\frac{3}{8}$ inches in size, and a tool rest. Weight, boxed, 13 pounds.



LUTHER **DIMO-GRIT** GRINDERS

Disc and Sickle Attachments Nos. 925A and 945A

For Nos. 308, 309 and 310 only



Power Bench Grinder No. 309 with Disc Attachment No. 925A



Power Bench Grinder No. 309 with Sickle Attachment No. 945A

No. 925A will hold any disc up to 28 inches. Grinding done automatically or at the will of the operator. Used on either side of grinder and can be used with any of these power grinders.

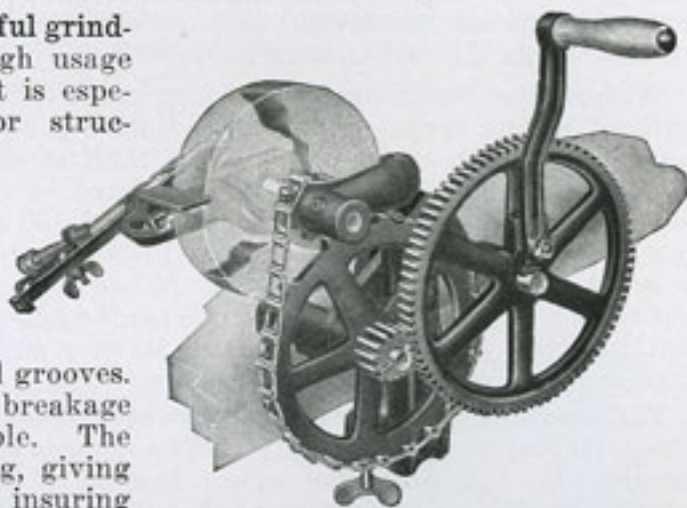
Weight, 4 pounds.

No. 945A. One end of the sickle is rested on the attachment and the other on the tool rest support. Grinding is done on both sides of the grinding wheels, similar to the method used with our No. 13A, shown on page 24. Attachment is adjustable to either side and any bevel can be given.

Weight, 3 pounds.

Dimo-Grit Grinder No. 47

This large, powerful grinder is built for rough usage and hard work. It is especially designed for structural iron workers, bridge builders, construction and railroad gangs. The bearings are wide, with overhanging dust caps, oilholes and oil grooves. All parts liable to breakage are made malleable. The handle is extra long, giving a big leverage and insuring ease of operation.



No. 47

Luther's Patented Chisel and Plane Bit Guide No. 1007A will fit on this grinder.

No. 47 is equipped with a Light Dimo-Grit sharpening wheel of medium grit, 7 x 1 1/4 inches in size, adjustable tool rest, chisel and plane bit guide and twist drill grinding attachment.

Weight, boxed, 32 pounds.

Fully guaranteed.



LUTHER DIMO-GRIT GRINDERS

Ensilage Cutter Knives Sharpened Without Removing

Sharpening
Ensilage Cutter
Knives



It takes only 10 or 15 minutes to sharpen perfectly the knives of ensilage cutters, feed cutters and the blades of self-feeding threshing machines by means of this Flexible Shaft Attachment No. 990A on Grinder No. 47. This consists of a special Dimeo-Grit grinding wheel at the end of a flexible shaft. The shaft allows free access to the cutting knives **without removing them from the machine or making any adjustments whatever.** One person turns the grinder while another holds the fast-cutting Dimeo-Grit wheel to the blades.

Without our flexible shaft it is impossible to sharpen these knives without taking them out. This is a hard job. It takes longer to remove and then replace the blades than to sharpen them, for in most cases they are inaccessible and hard to get at. Dull blades lessen the life of your cutter at least 30 to 50 per cent; they rack the machinery, because they crush the fodder instead of cutting it. A great deal more power is used. When it requires such effort to put them in shape, one sharpening is made to last as long as possible. But with this attachment it is such an easy matter to do the work that the knives are kept in fine cutting shape all the time.

This machine and attachment have been tried out thoroughly and given the hardest sort of usage. The owners cannot say too much for the time and labor they save. Instead of being a long, tedious job to keep their machines in good cutting order, the work can now be done perfectly in a twentieth of the time it formerly required.

This same attachment—but No. 994A—is also used with the "Hummer" machine, described on page 22. Where there is much use for this flexible shaft, or where there are threshing machine knives to sharpen, **Grinder No. 47 will give the better satisfaction.** Being a foot-power machine, the "Hummer" has to stay on the



LUTHER DIMO-CRIT GRINDERS

ground; but No. 47 can be put on a plank or clamped to a cross-piece or any convenient part of the separator. It is also as well adapted to sharpening ensilage cutters as is the "Hummer." As a general grinder the No. 47 is more powerful and serviceable than any other hand-power sharpening machine.

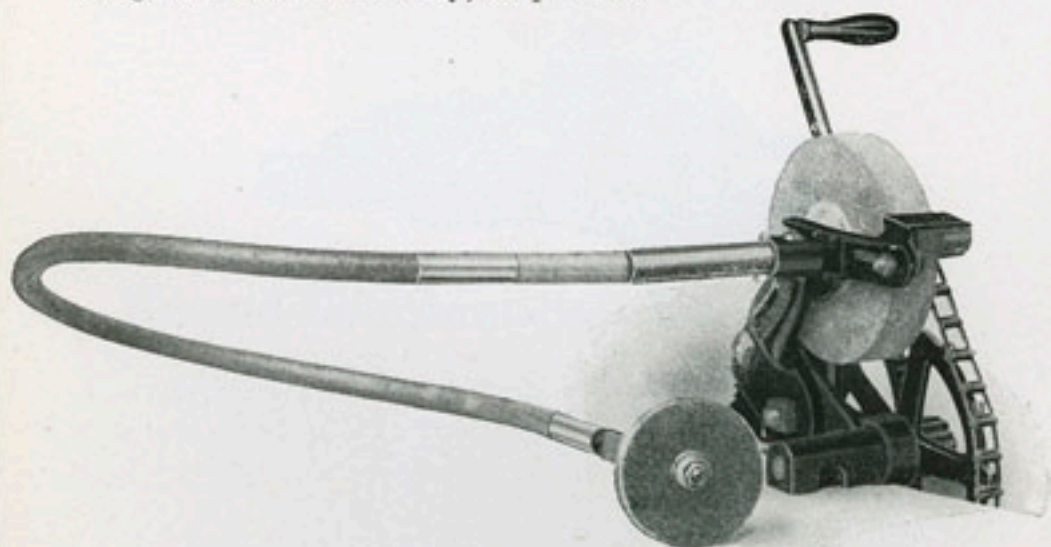
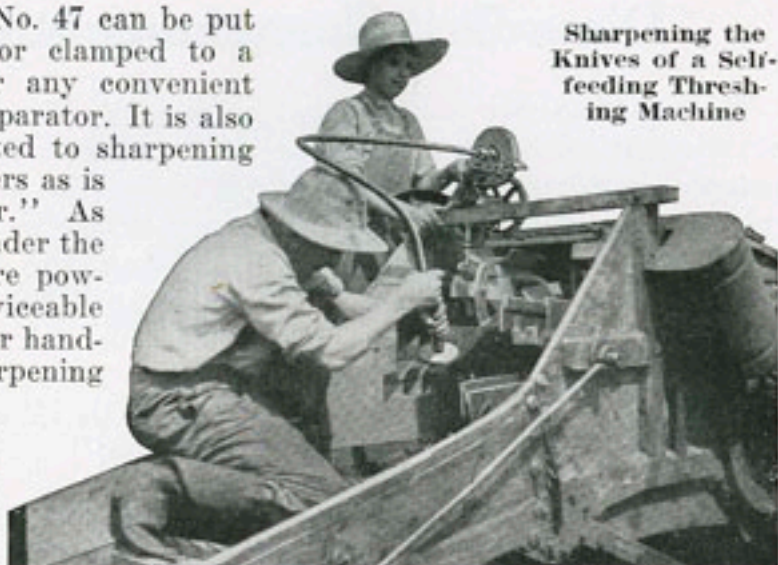
Besides the two uses mentioned for this attachment there are

dozens of other places in which it will be found superior to everything else. Some of them are as follows: Sharpening the calks on horses' shoes, sharpening the burs on feed grinders and the fluters on cornhuskers; sharpening mower guards—grass is cut easier and cleaner if the guards are sharp; and for all general grinding and polishing of parts that are inaccessible and difficult to remove.

Length of shaft, 6 feet. Size of grinding wheel, 3 x 1/2 inches.

Weight of attachment only, 11 pounds.

Sharpening the
Knives of a Self-
feeding Thresh-
ing Machine



LUTHER THE WHOLE FOR STEEL DIMO-GRIT GRINDERS

Dimo-Grit Sharpening Stones

The same superior qualities that make Light Dimo-Grit the best abrasive for steel make it also the **ideal substance for honing and sharpening stones**. The Light Dimo-Grit used in our hones, while it is as fast cutting as any other substance known to science today, is also **so extremely tough** that it stands up and holds its shape, even when used on the hardest steel. There are other sharpening substances that will **cut** as fast as these stones do, but none that will **stand up for so long without wearing down**. This combination of **extreme toughness** and **quick cutting** make these sharpening stones unequalled for long and even wearing qualities.

Dimo-Grit sharpening stones are made up into many different sizes and grits, so that any tool user can easily find the one best adapted to his own particular purpose.

Oil Stones

Although called oil stones, these stones may also be used dry or with water or oil; the use of oil makes them cut finer and smoother and enables you to adapt them to your own work according to whether you use them dry or with oil. They have no equal for fast cutting and long life.



Number	Size	Grit
228	8 x 2 x 1 in.	Fine
229	8 x 2 x 3/4 in.	"
230	6 x 2 x 1 in.	"
231	6 x 2 x 5/8 in.	"
235	4 x 1 3/4 x 1 1/2 in.	"
237	3 x 7/8 x 3/8 in.	"
238	3 x 3/4 x 1/4 in.	Medium (in leather case)



Combination Oil Stones



One face of these stones is coarse or medium in grit and the other very fine. They are extremely popular with carpenters and mechanics on account of the wide variety of work that can be done on the one stone. The coarse side puts the tool in shape very quickly and the other side gives a very fine edge.

Number	Size
245	4 x 13 $\frac{1}{4}$ x $\frac{5}{8}$ in.
246	5 x 2 x $\frac{3}{4}$ in.
247	6 x 2 x 1 in.
248	8 x 2 x 1 in.



Round Combination Bench Stone

The circular motion so desired for sharpening chisels and plane bits is best obtained on a round stone. This is deservedly our most popular mechanic's stone. Coarse and very fine grits in the one stone.

No. 244—4 inches in diameter by 1 inch thick.



LUTHER **DIMO-GRIT** GRINDERS

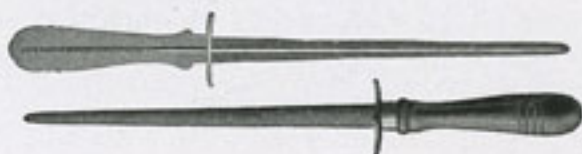
Round Combination Axe Stone



Just the thing for the woodsman—coarse and fine finishing grits in one stone. A very handy shape for the pocket.

No. 241—3 inches in diameter by $\frac{5}{8}$ inch thick.

Knife Sharpener



Steel rod extends the full length of shaft and handle. Entire material covering the rod is solid Dimo-Grit. Length over all, 12 inches. No. 242.

Razor Hone



The finest Dimo-Grit powder, so fine that it floats on water a half hour before sinking, is used for our razor hones. While they sharpen very quickly, the edge they give the razor is unequalled for fineness.

Number

221

222

Size

4 x 2 x $\frac{1}{2}$ in.

5 x 2 x $\frac{1}{2}$ in.



LUTHER MADE IN U.S.A. DIMO-GRIT GRINDERS

Slip Stones



Another form of Dimo-Grit stones that is very popular and is unexcelled for fast cutting and long wearing qualities.

Number	Size
208	$4\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{2}-\frac{3}{16}$ in. Fine.
209	$4\frac{1}{2} \times 1\frac{3}{4} \times \frac{1}{2}-\frac{3}{16}$ in. Medium.

Scythe Stones



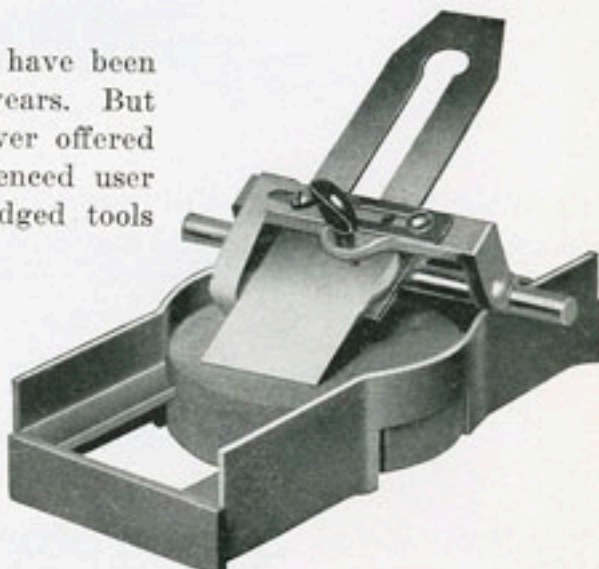
These fast cutting and hard-to-break scythe stones are just the right size and shape; they fit the hand and make it an easy job to give a quick, smooth, featherless edge to a scythe. With one of these stones it is rarely necessary to grind a scythe. Guaranteed not to glaze.

Number	Size
250	10 in.
252	10 in. Heavy.



Luther Patented Honing Device No. 74

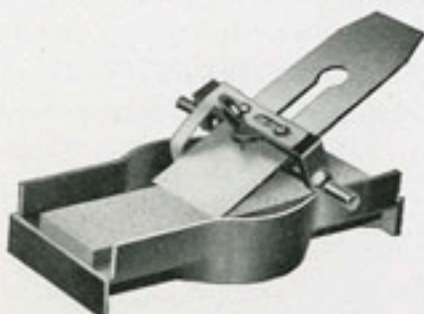
Chisels and plane bits have been made for hundreds of years. But this is the first device ever offered with which the inexperienced user can sharpen these fine-edged tools **properly on a sharpening stone**. It is impossible to give it a straight bevel on any sharpening stone by hand. A slight rounding of the bevel is likely to make the chisel or plane bit "ride," and to get a satisfactory edge on this much-used tool has been the bane of the carpenter's existence.



Using a Round Stone

On this new patented honing device, any experienced person can sharpen chisels and plane bits absolutely perfect, giving a **true, even, straight bevel**, something impossible to obtain by the old method. It allows the **free circular motion** that carpenters think so much of. In sharpening a chisel the tool is held at a true and perfect angle on the stone. Any desired angle can be given.

This device is put out to take either a **round** hone 4 inches in diameter, the same as our No. 244, or a **rectangular** hone. It will take a rectangular hone 8 inches in length, such as our No. 248.



With an 8-inch Stone

However, a 6-inch sharpening stone may also be used here, the same as our No. 247. No sharpening stone is included in this device. Weight, boxed, 3 pounds.

This device is one of the most useful articles any carpenter can have and will give him value received many times over.



LUTHER DIMO-GRIT GRINDERS

"Shur-On" Wash Tub Legs

This new attachment gives to any wash tub a **light, permanent stand.**

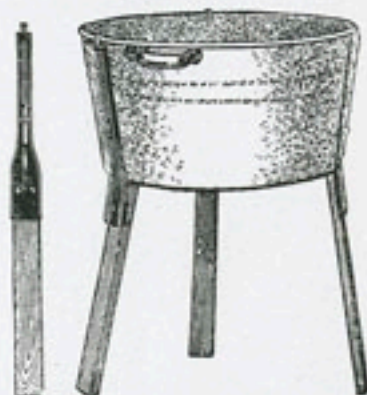
The legs attach instantly to any wash tub, either iron or wooden, and when not in use can be left permanently on the tub or taken off each time. They are very rigid, strong, adjustable to different sizes of tubs, and no danger of tipping over.

The "**Shur-On**" Wash Tub Legs are made from the very best obtainable grades of hardwood, gray iron and oil-tempered spring steel. They are highly finished and make an attractive appearance on a wash tub. It is impossible to break or injure them in any way; spring tension is easily loosened or tightened. They will store in a small space or may be left permanently on the tub. Protected by United States patent.

Weight, 6 pounds.

No. 760 is for iron or galvanized tubs; No. 761 is for wooden tubs.

Fully guaranteed.



Luther Drill Attachments Nos. 731A, 732B and 733C

Formerly Known as Ideal Drilling Attachments A, B and C

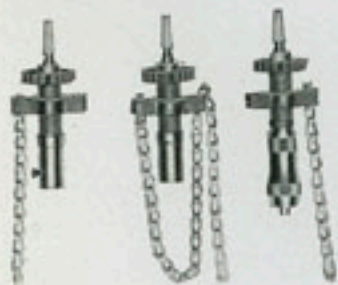
Can be attached to any bit brace and transforms it into a **force feed drill.** It has screw feed and ball bearings. A three-foot chain loops around the work and back into the clamp and holds the drill to various sized articles.

The screw feed enables holes to be drilled in brass or iron as easily as a common brace drills through wood. **Fits any brace.**

No. 731A takes round shank black-smith's drills.

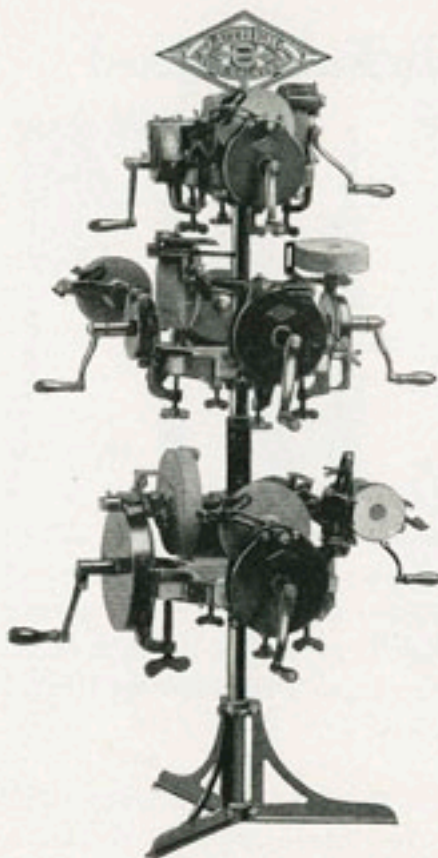
No. 732B takes standard square shank drills.

No. 733C is fitted with a chuck holding drills from $\frac{1}{8}$ -inch to $\frac{1}{2}$ -inch.



LUTHER DIMO-GRIT GRINDERS

Luther Display Stands



Floor Stand

Made entirely of metal except the clamping boards. Make very attractive stands on which to display grinders. Have a good, firm base, strong arms, and are finished in red and black enamel. One stand is loaned free of charge with a sufficient order of Luther Grinders.

No. 29 is a counter stand and holds eight machines. Floor space, 18 inches square. Height over all, 31 inches. Weight, boxed, 21 pounds.

No. 30 is a floor stand, holding twelve machines. Floor space, 18 inches square. Height over all, 49 inches. Weight, boxed, 30 pounds.

Our Guarantee

The words "Fully Guaranteed," as applied in this catalog to various machines, mean that **WE GUARANTEE WITHOUT LIMIT ALL SUCH GRINDERS** against any defect in material and workmanship and against any point in which they do not prove, after hard usage, to be exactly as represented. In other words, we absolutely guarantee the grinders to give the service that is expected of such machines.

LUTHER GRINDER MANUFACTURING CO.,
Milwaukee, Wis.



Repairs

Changes are constantly being made to improve our machines. It is our endeavor to give our customers the very best machines and best service possible. On account of these constant changes, it is necessary that we have their assistance as far as possible in taking care of orders for repairs.

In ordering repairs, please **GIVE THE NUMBER OF PART DESIRED**, or send the old one to us. If it is impossible to do this, send a picture of the grinder, marking the part desired. If the picture does not show your machine exactly as it is, be sure to give the size of the grinding wheel.

In ordering wheels, it is necessary to state the **DIAMETER, THICKNESS, SIZE OF ARBOR HOLE, GRIT DESIRED** and **HOW THE WHEEL IS FASTENED TO THE MACHINE.**

In ordering pinions or shafts, send the old ones to us, or give the name of the grinder, the size of the grinding wheel, and the approximate date, if possible, when the grinder was purchased.

These points are of the utmost importance, and will greatly facilitate our giving you the best service in furnishing repairs and extras.

